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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,509	08/13/2001	Shingo Ohikawa	1185.1063	5900

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EXAMINER

TSIDLKO, MARK

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/927,509

Applicant(s)

OHKAWA, SHINGO

Examiner

Mark Tsidulko

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10 and 12-15 is/are rejected.
- 7) ☒ Claim(s) 7, 11 and 16-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All, b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

The submission of amendment filed on 9/12/03 is acknowledged. At this point claims 7-9, 12, 13 have been amended, new claims 16-21 have been added and the remaining claims left unchanged. Thus, claims 1-21 are at issue in the instant application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **1, 3, 9** are rejected under 35 U.S.C. 102(b) as being anticipated by Ochiai (US 5,703,667).

Referring to Claim **1** Ochiai discloses (Figs.2, 6C) a light guide plate including an emission face [7], a back face [2b], having a great number of micro-reflectors [33] that have a first slope and second slope, where a first slope is inclined with respect to an extending plane of the emission face more gently than a second slope and a side end face [2C], light inputting being done through this side end face. Inputted light being converted into an inner output light directed to the emission face is effected by first slope and then effected by a second slope and emitted from the emission face (Fig.6C).

Referring to Claims **3, 9** Ochiai discloses (Figs.2, 6C) a light guide plate including a light source [4], an emission face [7], a back face [2b], having a great number of micro-reflectors [33] that have a first slope and second slope, wherein a first slope is inclined with respect to an extending plane

of the emission face more gently than a second slope and a side end face [2C], light inputting being done through this side end face. Inputted light being converted into an inner output light directed to the emission face is effected by first slope and then effected by a second slope and emitted from the emission face (Fig 6C).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims **2, 4, 6 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochiai (US 5,703,667) in view of Wragg (US 4,373,282).

Referring to Claims **2, 6, 10** Ochiai discloses the instant claimed invention, disclosed in the independent claims 1, 3 and 9, except for orientation of micro-reflectors.

Wragg discloses that the micro-reflectors may have any desired orientation (col.3, lines 42-44).

Referring to Claim **4** Ochiai discloses the reflection member disposed along the back side face.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the micro-reflectors of Ochiai having different orientation, as taught by Wragg in order to reflect the inputted light

Claim **5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ochiai and Wragg as applied to claim 4 above, and further in view of Mochizuki et al. (US 4,737,896).

Ochiai and Wragg disclose the instant claimed invention except for irregular reflection.

Mochizuki et al. disclose an illumination device including irregular reflection plate (col.1, lines 10-14) for irregular reflection of the light reaches from the back side face of the LCD.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the irregular reflection plate, as taught by Mochizuki et al. for the device of Ochiai et al., in order to obtain the irregular reflection of the light reaches from the back side face of the LCD.

Claims 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochiai (US 5,703,667) in view of Scholz (US 5,331,530).

Ochiai discloses the instant claimed invention except for point-like light source.

Scholz discloses an operating lamp having a point-like light source [13] (col.3, line32) and the light emitted by the light source travels radially (col.4, lines 66-68).

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the point-like light source, as taught by Scholz for the device of Ochiai in order to obtain the light traveling radially.

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochiai (US 5,703,667) in view of Yamamoto et al. (US 5,341,231).

Referring to Claim 12 Ochiai discloses the instant claimed invention except for light source disposed at front side of LCD.

Yamamoto et al. disclose (Fig. 1) a light source disposed at front side of LCD.

Referring to Claim 13 Ochiai discloses the instant claimed invention except for light source disposed at back side of the LCD.

Yamamoto et al. disclose (Fig. 1) a light source disposed at back side of the LCD.

Referring to Claim 14 Ochiai discloses a reflection member that is disposed along the back side face.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the light source of device of Ochiai disposed at front or back side of LCD, as taught by Yamamoto et al. in order to illuminate the device.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ochiai and Yamamoto et al. as applied to claim 4 above, and further in view of Mochizuki et al. (US 4,737,896).

Ochiai and Wragg disclose the instant claimed invention except for irregular reflection.

Mochizuki et al. disclose an illumination device including irregular reflection plate (col. 1, lines 10-14) for irregular reflection of the light reaches from the back side face of the LCD.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the irregular reflection plate, as taught by Mochizuki et al. for the device of Ochiai et al., in order to obtain the irregular reflection of the light reaches from the back side face of the LCD.

Allowable Subject Matter

Claims 7, 11, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims because the prior art of record fails to show a surface light source device wherein light inputting is done from a plurality of directions different from one another and the great number of micro-reflectors oriented into groups corresponding to the plurality of directions respectively so that micro-reflectors belonging to each of the groups has charge of a partial production of the inner output light according to a share allotted to each of the groups.

Claims **16-19** are objected as claim depended on claim 11.

Claim **21** is objected as claim depended on claim 7.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Tsidulko whose telephone number is (703) 308-1326. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

M.T.
November 4, 2003

A handwritten signature in black ink, appearing to read 'Mark Tsidulko', is written over the signature line.